

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP
JULY 30, 1980

DPM 5075

Section I

MANUFACTURER'S NAME BOSTIK WEST, DIV. OF USM CORPORATION, AN EMHART UNIT

STREET ADDRESS 20846 So. Normandie Ave. CITY, STATE, AND ZIP CODE Torrance, Ca. 90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS EPOXY

MANUFACTURERS CODE IDENTIFICATION 443-3-63

Catalyst: X-304

TRADE NAME BOSTIK

Mix Ratio: 3 parts 443-3-63 (Base)
to 1 part X-304 by volume

Section II - HAZARDOUS INGREDIENTS

INGREDIENT 443-3-63 (BASE ONLY)	PERCENT (Wt.)	TLV		LEL	VAPOR PRESSURE mm Hg.
		PPM	mg/M ³		
KETONE SOLVENTS	25-30	25-200		1.2	70.0
AROMATIC SOLVENTS	10-15	200		1.0	22.0
GLYCOL ETHER SOLVENTS	< 5.0	505		1.1	1.0
ALCOHOL SOLVENTS	< 1.0	100		1.7	4.0
CHROMIUM COMPOUNDS	25-30	-	0.5	-	-

Section III - PHYSICAL DATA

BOILING RANGE 176-340 Deg. F.

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

PERCENT VOLATILE
BY VOLUME

60%

WEIGHT PER
GALLON

10.5 lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Red label, Flammable

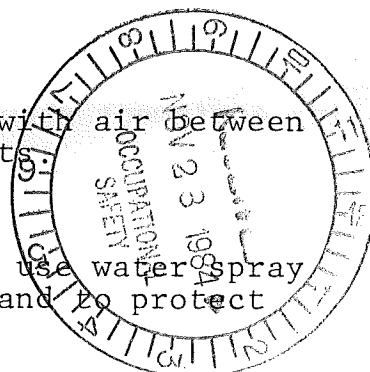
(Min.) FLASH POINT 23 Deg. F. Tag Closed LEL 1.0
Cup

EXTINGUISHING MEDIA Exclude air - Use foam, CO₂, steam, water-fog,
dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS Vapor forms explosive mixture with air between
upper and lower explosion limits

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray
to cool fire exposed surfaces and to protect
personnel.



Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II

EFFECTS OF OVEREXPOSURE Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes.

EMERGENCY AND FIRST AID PROCEDURES Skin Exposure: Wash affected area with soap and water.
Eye Exposure: Flush with water for at least 15 minutes, consult physician.
Ingestion: Consult physician immediately.
Inhalation: Remove victim to fresh air, consult physician.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE

INCOMPATIBILITY (Materials to avoid) Strong oxidizing agents. Sparks and open flame

HAZARDOUS DECOMPOSITION PRODUCTS

CO, CO₂, Aldehydes and other organics, lead fumes, oxides of nitrogen.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate sources of ignition and clear fumes from area. Prevent liquid from entering sewers, water courses, or low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust, sand or oil absorbing compound. Wash area with detergent & water. Consult disposal expert & ensure conformity with local regulations.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Use approved respiratory protection such as an air-supplied mask if used in non ventilated area.

Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.

VENTILATION Face velocity > 60 fpm in confined area.

PROTECTIVE GLOVES Chemically resistant gloves

EYE PROTECTION Chemical splash goggles or face shield


OTHER PROTECTIVE EQUIPMENT Eye bath & safety shower

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep containers closed when not in use. Do not handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied - - these containers retain product residues (vapor, liquid, etc.).

OTHER PRECAUTIONS All handling equipment should be electrically grounded. Treat as a very flammable liquid.


Kenneth J. Silberberg
Technical Administrative Mgr.

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP
JULY 10, 1980

Section I

MANUFACTURER'S NAME BOSTIK WEST, DIV. OF USM CORPORATION, AN EMHART UNIT

STREET ADDRESS 20846 So. Normandie Ave. CITY, STATE, AND ZIP CODE Torrance, Ca. 90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS AMINE

MANUFACTURERS CODE IDENTIFICATION X-304

TRADE NAME BOSTIK

Catalyst for 443-3-Series; 3 parts bas
to 1 part X-304. 453-1000 Series, 4 parts bas
to 1 part X-304. 463-3-Series, 4 parts base t

Section II - HAZARDOUS INGREDIENTS

1 part X-304.

INGREDIENT	PERCENT (Wt.)	TLV		LEL	VAPOR PRESSURE mm Hg.
		PPM	mg/M ³		
X-304 EPOXY CATALYST **					
ALCOHOL SOLVENTS	20-25	100		1.7	4.0
GLYCOL ETHER SOLVENTS	10-15	50		1.1	1.0
KETONE SOLVENTS	45-50	200		1.56	70.0
AROMATIC SOLVENTS	5.0	200		1.2	22.0
*X-304 may also contain a minor amount of diethylene triamine (DETA) ACGIH TWA		1.0			

Section III - PHYSICAL DATA

BOILING RANGE 176-340 Deg. F.

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

PERCENT VOLATILE
BY VOLUME

75%

WEIGHT PER
GALLON

7.1 lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Red label, Flammable

(Min.)
FLASH POINT 23 Deg. F., Tag Closed LEL 1.1
Cup

EXTINGUISHING MEDIA Exclude air - Use foam, CO₂, steam, water-fog,
dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between
upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray
to cool fire exposed surfaces and to protect
personnel.

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II

EFFECTS OF OVEREXPOSURE

Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat and eyes. Irritating to skin and strong skin sensitizer.

EMERGENCY AND FIRST AID PROCEDURES

Skin Exposure: Wash affected area with soap and water.

Eye Exposure: Flush with water for at least 15 minutes, consult physician.

Ingestion: Consult physician immediately.

Inhalation: Remove victim to fresh air, consult physician.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE

INCOMPATIBILITY (Materials to avoid)

Strong oxidizing agents, in- Storage at high temperatures
organic acids. Sparks and open flame

HAZARDOUS DECOMPOSITION PRODUCTS

CO, CO₂, Oxides of Nitrogen.

HAZARDOUS POLYMERIZATION

☐ MAY OCCUR

☒ WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Eliminate sources of ignition and clear fumes from area. Prevent liquid from entering sewers, water sources, and low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust or oil absorbing compound. Wash with detergent and water. Consult disposal expert and ensure conformity with local regulations.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Use approved respiratory protection such as an air-supplied mask if used in non-ventilated area.

Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.

VENTILATION

Face velocity > 60 fpm in confined area.

PROTECTIVE GLOVES

Chemically resistant gloves

EYE PROTECTION

Chemical splash goggles or face shield

OTHER PROTECTIVE EQUIPMENT


Eye Bath and safety shower.

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Material is sensitive to moisture and should be kept in tightly closed containers. Do not handle or store near flame, heat or strong oxidants. Adequate ventilation is required. Containers of this product may be hazardous when emptied - - these containers retain product residues (vapor, liquid, etc.)

All handling equipment should be electrically grounded. Treat as a very flammable liquid.


Kenneth J. Silberberg
Technical Administrative Manager